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<u>REMARKS / DISCUSSION OF ISSUES</u>

Claims 1-20 are pending in the application; claims 10-20 are newly added; and claim 8 is amended to be an independent claim. No new matter is added, and the intended scope of the claims is not reduced.

The applicant thanks the Examiner for acknowledging the claim for priority and receipt of certified copies of all the priority document(s), and for acknowledging that the drawings are acceptable.

The Office action rejects claims 1-3 and 5-9 under 35 U.S.C. 103(a) over Drouot et al. (WO 01/120912, hereinafter Drouot) and Mancuso et al. (USP 6,285,801, hereinafter Mancuso). The applicant respectfully traverses this rejection.

The combination of Drouot and Mancuso fails to teach detecting blocking artifacts from a set of discontinuity pixels and searching rows for a grid row having a density of blocking artifacts that is substantially larger than that of its neighboring rows, as specifically claimed in each of independent claims 1 and 8.

The Office action acknowledges that Drouot does not teach searching rows for a grid row having a density of blocking artifacts that is substantially larger than that of its neighboring rows, and relies upon Mancuso for this teaching.

The Office action asserts that Mancuso searches for rows having a density of blocking artifacts that is larger than that of its neighboring rows at FIG. 4 and column 5, line 8. The applicant respectfully disagrees with this assertion. At FIG. 4, Mancuso illustrates a block boundary 404 that exists in the image. Mancuso, however, does not teach or suggest searching for such a boundary, and the Office action fails to identify where Mancuso teaches or suggests searching for the boundary. At column 5, line 8, Mancuso teaches:

> "Recall that the global metrics extractor 104 uses Sobel-like operators to compensate for the enhanced noise caused by taking derivatives of the pixels. In particular, the global metrics extractor 104 applies a horizontal Sobel-like operator h_s and a vertical Sobel-like operator v_s to each pixel in the horizontal and vertical processing windows, respectively." (Mancuso, column 5, lines 8-14.)

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As clearly taught by Mancuso, the metrics extractor 104 is applied to determine parameters for each pixel. Mancuso does not teach or suggest using these metrics to identify grid rows by comparing the metrics of one row to its neighboring rows. Mancuso's metric extraction is performed for each pixel, and the result of this extraction is used to filter the value of that pixel. This pixel-by-pixel analysis and filtering does not correspond to a search for a row of pixels that exhibit a higher density of blocking artifacts, as taught and claimed by the applicant.

Mancuso notes that boundary regions will generally produce different metrics than non-boundary regions, but does not teach or suggest searching for such boundary regions by analyzing such metrics. Of particular note, Mancuso does not teach or suggest determining a density of blocking artifacts in a row, and thus cannot be said to teach or suggest comparing the density of blocking artifacts in a row to the density of blocking artifacts in another row. Accordingly, the Office action's assertion that Mancuso teaches searching rows for a grid row having a density of blocking artifacts that is substantially larger than that of its neighboring rows is unfounded, and the rejection of claims 1-3 and 5-9 under 35 U.S.C. 103(a) that relies on Mancuso for providing this teaching should be withdrawn.

The Office action rejects claim 4 under 35 U.S.C. 103(a) over Drouot, Mancuso, and Jung et al. (USP 6,822,675, hereinafter Jung). The applicant respectfully traverses this rejection.

Claim 4 is dependent upon claim 1. In this rejection, the Office action relies on the combination of Drouot and Mancuso for teaching the elements of claim 1. As noted above, the combination of Drouot and Mancuso fails to teach or suggest each of the elements of claim 1. Accordingly, the rejection of claim 4 under 35 U.S.C. 103(a) that relies on the combination of Drouot and Mancuso for teaching the elements of claim 1 should be withdrawn.

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The Office action rejects claim 9 under 35 U.S.C. 112, second paragraph. The applicant respectfully traverses this rejection.

The Office action asserts that "computer medium" in claim 9 lacks antecedent basis. The applicant respectfully disagrees with this assertion, because the only reference to "computer medium" in claim 9 is "A computer medium". The indefinite article "A" necessarily and sufficiently provides a basis for the term "computer medium", and, because it is the first use of the term does not require an antecedent basis. Accordingly, the rejection of claim 9 under 35 U.S.C. 112, second paragraph, for failing to provide an antecedent basis for a computer medium is unfounded, and should be reversed.

The Office action rejects claim 9 under 35 U.S.C. 101. The applicant respectfully traverses this rejection.

The Office action asserts that "claim 9 defines a 'data carrier', for example a disc and a 'form of a downloadable signal' with descriptive material." The applicant respectfully disagrees with this assertion.

MPEP 2101.06 states:

> "Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component...
> Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized."

Claim 9 recites: "A computer medium that includes a program product comprising a set of instructions which, when loaded into a circuit, cause said circuit to perform the method of processing digital images as claimed in claim 1."

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As stated in MPEP 2101.06, functional descriptive material that is recorded on a computer-readable medium is statutory, because the use of this material permits the function of the material to be realized. Claim 9 clearly claims material that is recorded on computer-readable medium and is used to permit the function of claim 1 to be realized. Accordingly, the applicant respectfully maintains that the rejection of claim 9 under 35 U.S.C. 101 is unfounded, per MPEP 2101.06.

In view of the foregoing, the applicant respectfully requests that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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